

## **BURLINGTON NORTHERN FACILITY-WHITEFISH**

Whitefish, MT

### **Site Summary**

May 2012

The Burlington Northern (BN) Facility-Whitefish, State Superfund Facility (Facility), near Railway Street and Spokane Avenue, is an active, approximately 78-acre locomotive fueling and repair facility which has operated since the 1890's. The Facility had three separate fueling areas: a freight fueling area west of the highway overpass and two Amtrak fueling areas east of the overpass known as the east and west passenger fueling areas. The passenger fueling areas were not utilized after the mid 1980's, though the freight fueling area is still active today.

Light locomotive repair and cleaning has occurred in the roundhouse located on the western portion of the Facility from the early 1900s. Historically a power house was located on-site to power the roundhouse. Waste water from the roundhouse area is currently collected in three wastewater lagoons that are located in the freight fueling area. Releases associated with fueling, repair operations, powerhouse generation, and wastewater transportation to the lagoons have resulted in soil and shallow groundwater contamination by petroleum products (primarily diesel), polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), and heavy metals.

The Facility is located on the north edge of downtown Whitefish; it is bordered by commercial and residential areas to the southeast and the Whitefish River to the southwest. Neither shallow groundwater nor water from the river is used for drinking water. The Whitefish River is currently used for irrigation and recreation. The City of Whitefish receives its drinking water from mountain drainage reservoirs located above the city.

In 1973, BN began recovering free petroleum product from shallow groundwater via an interception trench located southeast of the roundhouse, in between the wastewater lagoons and the Whitefish River.

In 1986, the United States Environmental Protection Agency (EPA) inspected the Facility after receiving a citizen complaint of oil sheen in the Whitefish River. The EPA recommended no further EPA action after the investigation. The Montana Department of Health and Environmental Sciences (MDHES) Water Quality Bureau began overseeing investigation and cleanup actions at the facility.

From 1987 through 1989, BN consultants conducted several investigations at the freight fueling area and wastewater lagoons to determine the extent and nature of the contamination. The studies found free product floating on the water table, low levels of PAHs and some metals in the groundwater and moderate to high levels of petroleum hydrocarbons in soils. Sediment samples from the Whitefish River near the Facility contained low levels of PAHs and high levels of petroleum hydrocarbons. Contaminant levels decrease with distance downstream. During this time, BN continued recovering product from the interceptor trench, recovery wells and the wastewater lagoons.

In 1989, the Montana Department of Transportation (MDT) workers conducting geotechnical studies for a proposed new overpass encountered diesel in soils east of the existing highway overpass. From 1989 through 1992, MDT and its consultants conducted several investigations and design studies to determine how to handle contaminated soils and groundwater during overpass construction.

In 1996, BN submitted a remedial investigation (RI) work plan to complete the investigation at the Facility.

In December 1998, the Montana Department of Environmental Quality (DEQ)(formerly MDHES) issued a Unilateral Administrative Order to the Burlington Northern Santa Fe(BNSF) Company (formerly BN) requiring the completion of the remedial investigation and feasibility study.

In April 2000, BNSF submitted the draft RI for the upland portion of the Facility to DEQ. The document was approved in July 2011 after many revisions and additions, and only covers investigation work up until 2000. Data gaps were identified during RI activities which prompted the need for Supplemental RI work. In 2007, BNSF submitted a Remedial Investigation Supplement which includes additional facility assessment information; however due to additional data gaps identified, it was determined that this report would be combined with further supplemental investigations. Supplemental RI work has occurred in November 2004, Spring 2005, March 2011, Winter 2011, and Spring 2012. Vapor intrusion sampling is included in the March 2011, and Spring 2012 investigation work. Samples collected include indoor, outdoor, basement, crawlspace, and sub-slab soil gas (below the foundation) samples in both residential and commercial/industrial buildings on or surrounding the Facility in order to determine air quality.

In October 2000, BNSF submitted the Ecological Risk Assessment Plan for the Whitefish River. DEQ commented on the document and directed BNSF to resubmit it after it completes the Oil Pollution Act cleanup of the river under EPA direction (see below).

In October 2005, DEQ approved work plans submitted by BNSF to replace and upgrade the interceptor trench and to conduct an interim action to remediate surface soils that were contaminated with lead.

In April 2006, BNSF implemented a DEQ approved work plan to evaluate expanded free-product recovery. In November 2008, BNSF constructed a spill control and countermeasures retention structure between the roundhouse and lagoon pond area and also completed construction of a microwell recovery demonstration project in the same area. As of September 2009, 15, 688 gallons of free product have been recovered and the remaining free product plume is limited to an area between the turntable and the wastewater lagoon. Dissolved phase contaminants exceeding DEQ risk-based screening levels or DEQ-7 groundwater standards have not been detected south of Railway Street or east of Miles Avenue.

In 2007, a resident complaint of oil in the Whitefish River initiated an EPA investigation . The EPA discovered petroleum residuals in river sediments near the Facility in 2008 and 2009. In the Summer of 2009, the EPA issued an administrative order under the Oil Pollution Act authority which required BNSF to clean up visible contamination in the Whitefish River. Removal of contaminated sediment from the river began in late Fall 2009 and is estimated to continue for several years.

In November of 2009, the City of Whitefish completed its own study of soil and groundwater conditions in the Railway District funded by a grant from the Montana Department of Natural Resources and

Conservation. The results of the City's investigation indicate that contamination from the Facility above applicable screening levels is not present in the grant study area.

The DEQ Site Response Section is the lead regulatory agency for the Facility which is ranked as a high priority. Groundwater monitoring at the Facility is on-going. BNSF is preparing the Supplemental Remedial Investigation report which should be complete in the Summer of 2012. After the Remedial Investigation work is complete, BNSF is required to complete Human Health and Ecological Risk Assessments.